**Homework 5 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Distance Formula Period: \_\_\_\_\_\_\_\_Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to show work on all problems will result in a LaSalle.**

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| 1. Write the distance formula: | 1. Find the distance from C (-10, 12) and D (4, -14)? |
| 1. The endpoint of FM are F(10, -21) and M(11, -3). The endpoints of AC are A(-5, 12) and C(3,1). What is the approximate different in the lengths of the two segments? | 4. The locations of the towns of Mount Vernon is (11,0) and Clearfield is (-20, 2). Little City is (15, -12) and Allentown (21, 4). The coordinates are given in miles. Find the distance between Mount Vernon and Clearfield. Find the distance between Little City and Allentown. Which distance is greater? |
| 1. Graph and find the distance for the following:   A(-2, 0) and B(3, -6)  P(2, 3) and Q(-2, -1)  What line segment is the longest? What line segment is the shortest? | 1. Mark is standing at coordinate (-18, -8); Jackson is standing at coordinate (-6, 16); and Jenny is standing at (2, -12). Which two students are furthest away from each other? Which two students are the closest together? |
| 1. Find the distance between A(4, 4) and B(-1, -8). | 1. Find the distance between C(-4, 5) and D(10, -7). |
| 1. Find the distance between T(-2, 7) and H(5, -8). | 1. Find the distance between P(-16, 20) and R(7, 11). |

**Mixed Review**

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| 1. Find the slope of (-2, 3) and (5, -2). | 1. Find the slope of the graph below. |
| 1. Find the slope of (-11, 0) and (6, 13). | 1. Find the slope of (-6, 2) and (13, -6). |
| 1. Factor . | 1. What is the product of (4x -5) and (2x-1)? |
| 1. Factor . | 1. What is the product of (12x -3) and (x+ 5). |
| 1. Solve for w.   2p+ 4w = 13 | 1. Solve for |